Ueber ein neues Opticuscentrum beim Huhne. DR. PERLIA. Archiv für Ophthalmologie, Bd. xxxv, Abth. i, 1889. 1 Plate.

Upon studying in the chick the degeneration which follows the removal of one eye, Perlia finds, besides the usual degeneration of the contralateral tractus, a bundle of fibers which separates from the tractus at the ventro-lateral angle of the interbrain, and passes first dorsad then caudad along the mesal margin of the optic lobes, finally terminating in a large nucleus which lies laterad of the trochlearis nucleus, and is at least twice the size. The ganglion appears to connect with the *lobus opticus*, with the motor nuclei, and with the ventral portions of the axis. This bundle and its nucleus degenerate when the optic tract degenerates. Pending further work on its function, Perlia designates this as the median optic bundle, and makes the plausible suggestion that it will be found connected with the pupillary movements, which are so well developed in the bird.

Die Formentwickelung des menschlichen Vorderhirn von Ende des ersten bis zum Beginn des dritten Monats. WILHELM HIS. Abhandl. d. Mathemat.-phys. Cl. d. Königl. Sächs. Gesellschaft d. Wissenschaften. Bd. xv. Leipzig, 1889. 1 Plate.

This, the most recent paper by His on the development of the nervous system, is well supplied with cuts, and has, moreover, one plate of very unusual excellence in every way. The text is mainly a description of the contained figures, so that it cannot be given in abstract, save in a very incomplete manner. The immediate object of the paper is to give the topography of the first appearances (*primäre Anlagen*) of the different portions of the encephalon; only in the case of the olfactory lobe does the author enter into histological details. He opens with a discussion of the axial flexures of the mid and forebrain. Under the head of primitive longitudinal divisions of the mid and forebrain, His maintains that the division of the lateral half of the neural tube into a dorsal wing-plate (*Flügelplatte*) and a ventral basal-plate (*Grundplatte*) is recognizable not only in the region of the myelon, where he has already described it, but that it is continued cephalad to the extremity of the primitive forebrain. The line of demarcation between these two plates follows the flexures, as illustrated by the brain of *Ammocoetes* and that of a salmon embryo. This line terminates at a point just cephalad of the chiasma; and the optic tract, running as it does for some distance at the junction of the two plates, behaves like the ascending root of the other sensory cranial nerves.

The optic vesicle represents substance taken from the wall of the neural tube, and it is of great importance to determine from which of the above mentioned plates it may be derived. His decides that the main portion, and at least all that which forms the retina, comes from the basal plate. He is doubtful concerning the pigment layer alone, which may, in part, arise from the wing-plate. Morphologically, then, the retina is homologous with the anterior cornua of the spinal cord, and the region of the motor nuclei in the hind and mid-brain. This striking result puts the retina by itself, and separates it from all the other sensory organs thus far described. In speaking of the formation and protrusion of the optic vesicles, His holds to the mechanical explanation for the former, and goes into the anatomy of the region in the embryo in much detail. In the first stages the optic stalk enters the optic cup eccentrically, the point of union lying ventrad of the centre of the cup. With the change in the position of the eye, as development proceeds, the bulbs move cephalad and mesad, the change of position taking place in such a manner that the junction of stalk and cup becomes mesal. The optic nerve fibers follow the line of the optic stalk. It thus comes about that the eccentric insertion of the optic nerve in